

Directions for the 5th Northwest Power Plan

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Background

- Pacific Northwest Electric Power Planning and Conservation Act
 - Created Council
 - Charged Council with producing a regional power plan at least every 5 years
 - Fish and Wildlife program

What “the Act” requires...

- Plan to set forth a general scheme for implementing conservation and developing resources to reduce or meet the Administrators obligations with due consideration of:
 - Environmental quality
 - Compatibility with existing power system
 - Protection, mitigation and enhancement of fish and wildlife
 - Other criteria the Council might set forth

Plan Elements

- A conservation program
- R&D recommendations
- Methodology for determining quantifiable environmental costs and benefits
- 20 year demand forecast
- Forecast of “priority” resources available to meet demands
 - Conservation, Renewables, High-efficiency generation, All other
- Analysis of reserves and reliability requirements and cost-effective means of providing

Interesting, potentially useful, but...

- The Act envisioned a world in which
 - Utilities primarily vertically-integrated regulated monopolies
 - Bonneville at the center of resource development for the region
- Not the world that exists today or is likely to exist in the future
- Challenge – provide information and insights useful in world of today and next few years

The Plan provides an opportunity...

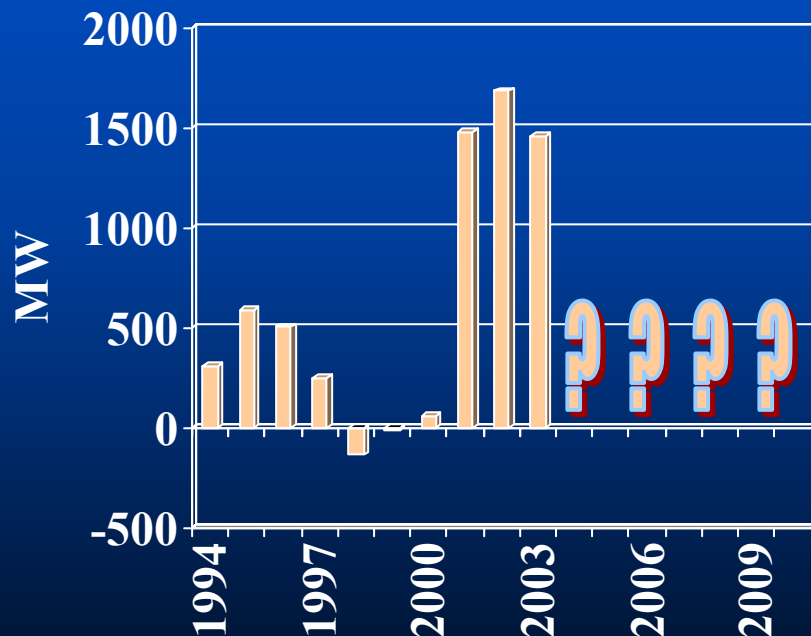
- To engage region on important policy issues affecting
 - The ability to assure an adequate, efficient, economic and reliable power supply
 - Protection, mitigation and enhancement of fish and wildlife resources

Issues for the Fifth Power Plan

- Council issued paper early this year laying out what we thought wer important issues
- Issue paper identified 9 issues and asked
 - Are these the right issues?
 - Are they described accurately?
 - Are there others we should consider?
 - Where's the priority?

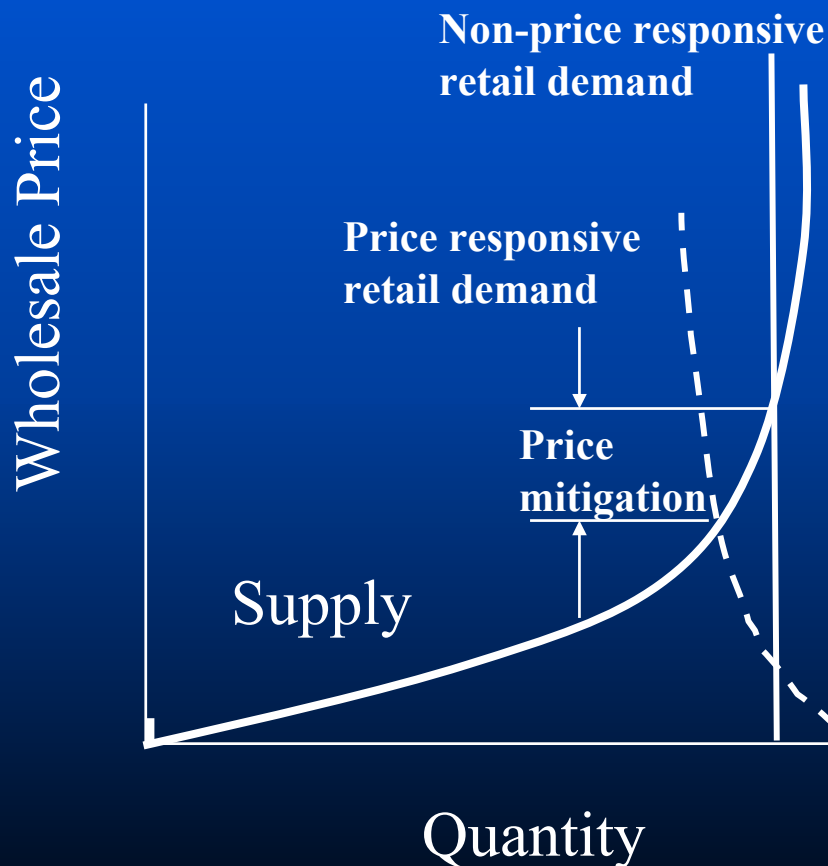
1. Incentives for development of generation

Net Capacity Additions



- 1990's – low power prices, regulatory uncertainty, immature market -- power plant construction didn't keep pace with load growth
- Price spikes of 2000-2001 resulted in new construction – most of which will be completed by 2003
- Then what? How do we assure adequate levels of development?

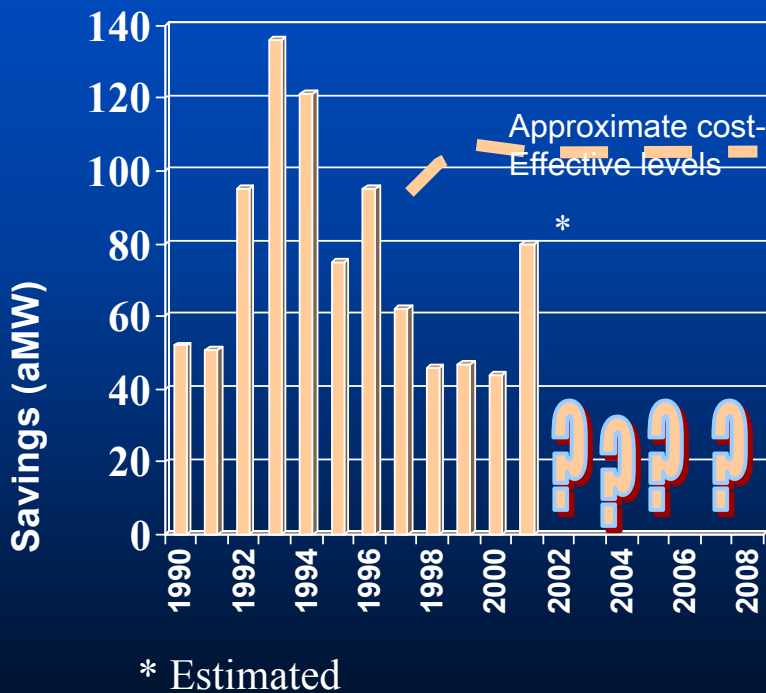
2. Increasing the price responsiveness of demand



- Most commodities, demand drops with higher prices – limiting how far prices rise
- Electricity –
 - Most demand does not see effect of higher wholesale prices until after the fact
 - Little discipline on prices
- How can we increase the price-responsiveness of demand in ways that are effective and acceptable?

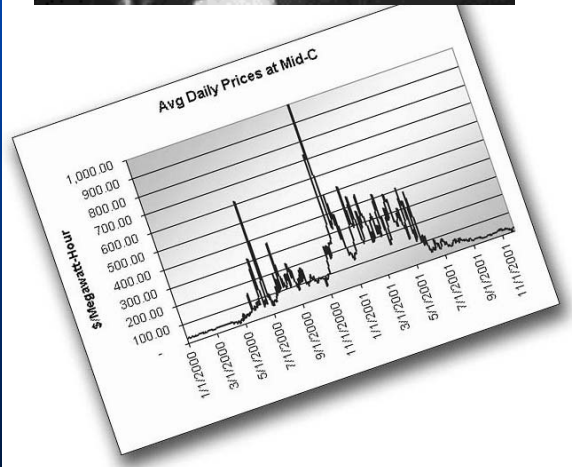
3. Sustaining economically-efficient investment inefficiency

Northwest Utility Annual Conservation Savings



- Investment in efficiency followed roller-coaster pattern
 - Low market prices – lower than cost-effective investment
 - High prices – Crash programs
- Would sustained investment at cost-effective levels make sense?
- If so, how can region achieve it?
Systems benefits charges, alternative rate setting ...?

4. Assessing supply adequacy and market performance



- 2000-2001 highlighted need for timely, accurate information to assess power supply adequacy and market performance
- Such information can now be difficult to obtain
- Council will assess data needed for planning and market assessment and make recommendations for obtaining that data

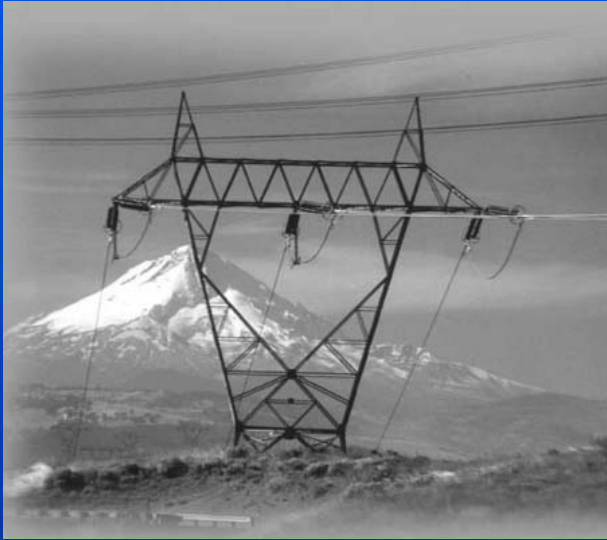
5. Fish operations and power



- 2000-2001 electricity crisis forced trade-offs that improved power supply at expense of fish
- Progress on preceding issues should reduce need for such trade-offs
- But conflicts likely to persist
- Affects incentives for other resources

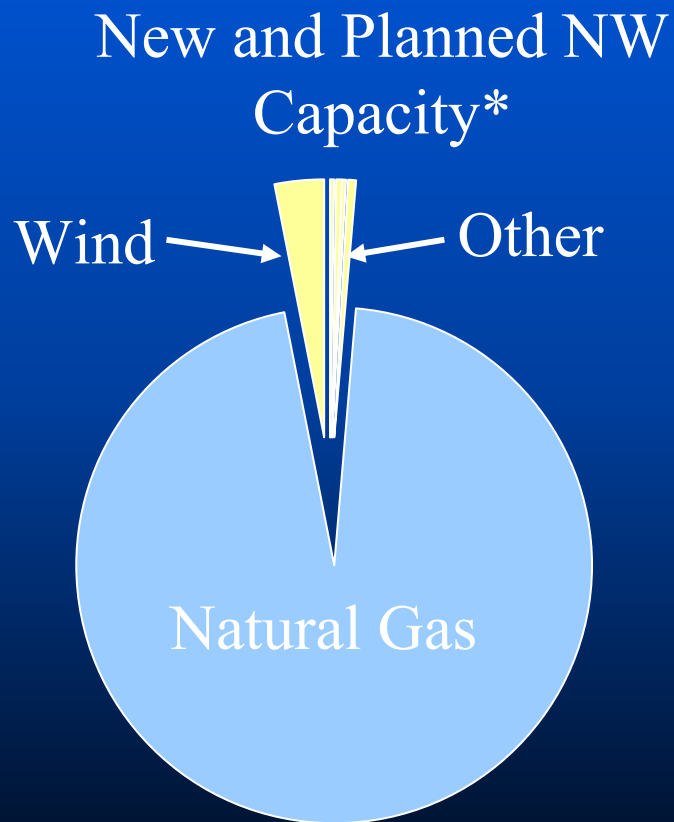
- Are there operational strategies and/or incentives to minimize impacts on fish recovery and mitigate impacts?

6. Transmission



- Transmission policy and planning critical to maintaining adequate, efficient, economic and reliable power system
- Separation of generation and transmission – Disaggregated decision-making
- Regional Transmission Organization addressing issues, but will be several years before formed, if ever
- Council will address alternatives for transmission pricing, planning, and policy affecting Council's mission

9. Value of/barriers to resource diversity



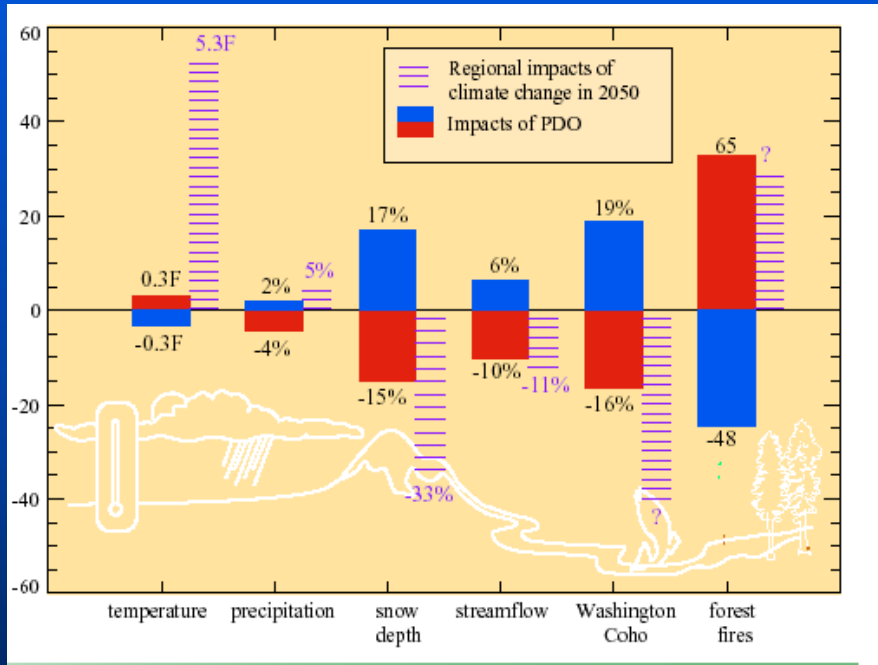
- Most new and planned generation natural gas fueled
- Would there be a value to a more diverse resource mix?
- Are there barriers to alternative generation and generation substitutes?
- If so, how could they be remedied – e.g. locational pricing, interconnection policies...?

8. Future role and obligations of the BPA



- Many question Bonneville's acquisition of new resources to serve growing loads in terms of:
 - Exposure to risk; effect on competitive wholesale power market; obscuring real cost of serving growing demand
- Limiting acquisition authority means limiting ability to serve growing public agency loads
- Customer groups currently working on proposals for long term allocation of Bonneville's existing power
- Council to evaluate pros and cons, make recommendation

9. Climate change risks to power system



- Climate change poses risks to the power system
 - Impact on hydro system capability
 - Impact of possible future climate change mitigation measures on power system costs, resource choices

- Plan will assess impacts and effect of strategies to address climate change impacts, e.g. carbon tax

Where will we focus the plan?

- Produce the data –
 - Demand forecasts
 - Fuel price forecast
 - Electricity price forecasts
 - Resource characteristics, cost, potential
 - Development activity
 - Reliability assessment
- And do it regularly – not tied to plan cycle

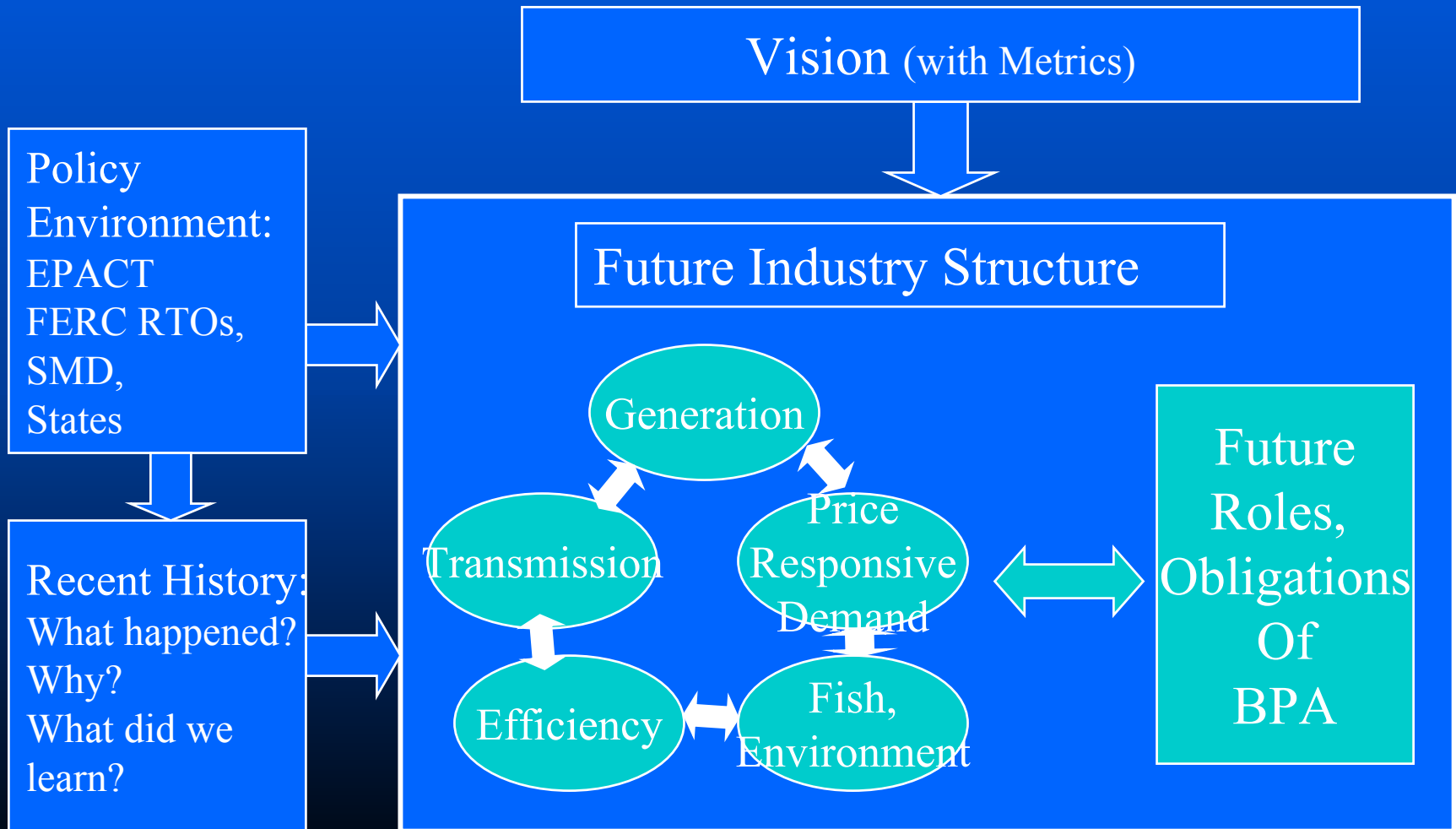
Focus (cont.)

- How do we make a “Mixed Market” environment work better?
- How do we better accommodate fish and power?
- How do we plan better for risk?
 - Market risk
 - Fuel risk
 - Environmental risk
- Future role of BPA

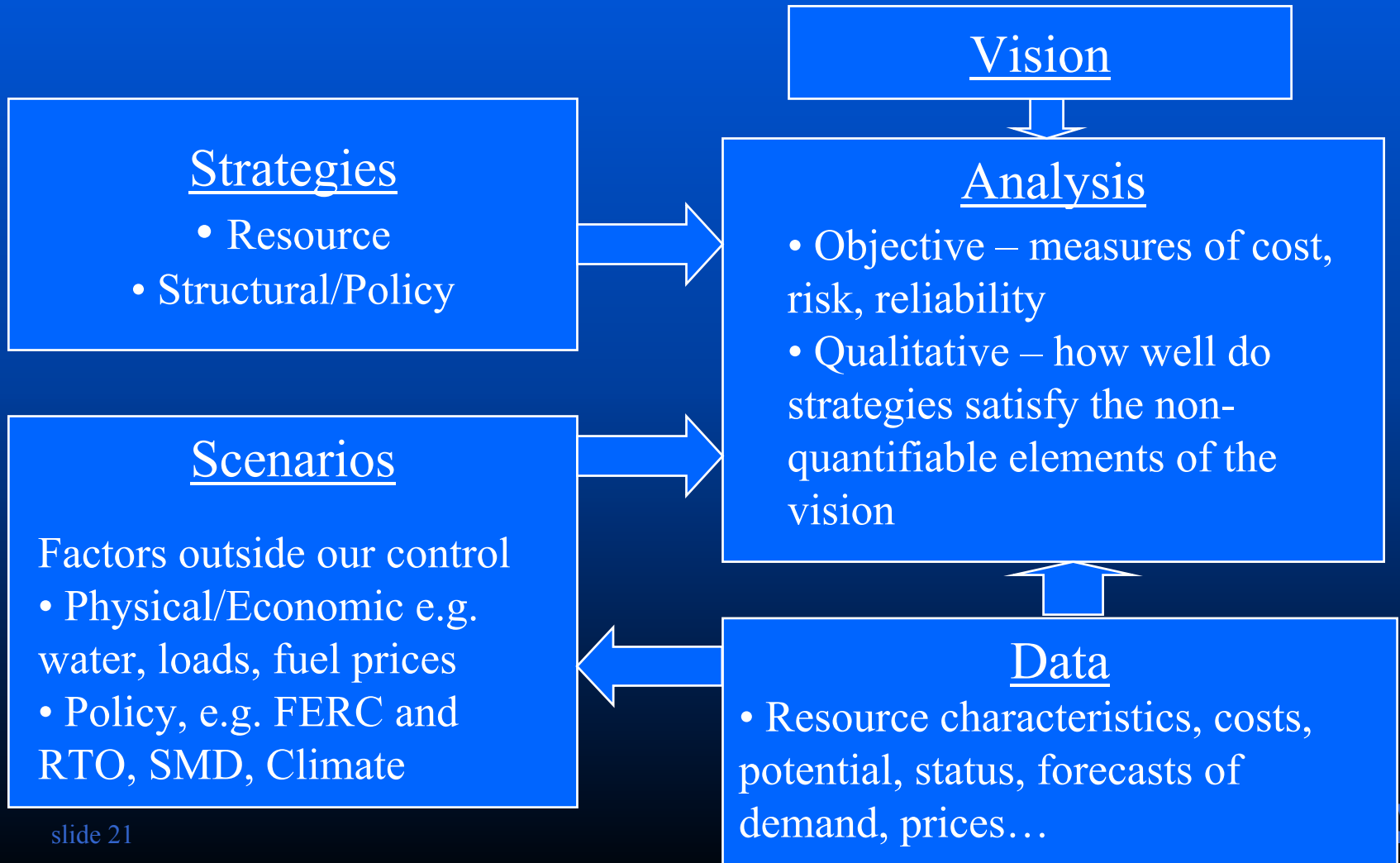
It can't be your father's power plan

- World of the Power Act envisioned centralized planning and decisions, costs and risks borne by region's consumers
- World of today and tomorrow – we can do centralized planning but
 - decision more likely resides with individual actors
 - » utilities, independent developers, end users...
 - Same with costs and risks, differing risk tolerances

Tying it together...



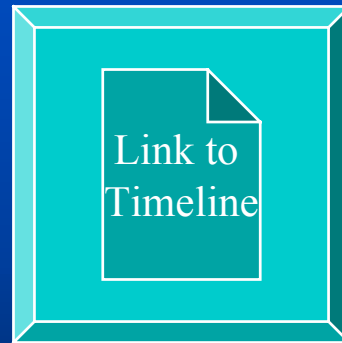
Analytically how...



Action Plan

- To effect preferred strategies...
 - What
 - When
 - Who

Timeline



To follow development of the plan...



- www.nwcouncil.org/energy/powerplan/default.htm
- Or follow the links to the 5th Plan at www.nwcouncil.org

